



STRESS & BREAST CANCER RECURRENCE

Ask Your Pharmacist

Women who have had breast cancer that have recurred or metastasized, and have also endured previous traumatic or stressful events, see their cancer recur nearly twice as fast as other women, according to the latest report by University of Rochester Medical Center scientists. The findings are published in the September 2007 issue of the *Journal of Psychosomatic Research*.

Nearly 42 percent of the 94 women with recurrent breast cancer were judged to have experienced one or more "traumatic" events such as childhood sexual abuse, rape, suicide of a family member or life-threatening injury. The control group consisted of women who reported no stressful experiences.

According to the lead researcher, Oxana Palesh, "...this study demonstrates that it's important to recover from trauma or a stressful event for your mental and physical health." The authors believe that a stressful or traumatic life event may reduce a person's resistance to tumor growth. Additionally, the research involved analyzing cortisol levels in saliva samples from participants.

Cortisol is a hormone that is produced during periods of stress. Much research has shown that abnormally prolonged cortisol production inhibits the body's immune response, which could potentially make the body more susceptible to recurrence of cancer, Palesh said.

"When there is consistent, long-term stress in the body, the elevated cortisol level may change the body's normal rhythms and potentially reduce resistance to tumor growth," said Palesh.

Numerous studies have shown that stress can alter the immune system's function, and that the activity of natural killer cells is related to breast cancer progression. All of the women were diagnosed in their late 40s, and 85 percent of them were white. Demographic analysis showed that 69 percent were married, and 19 of the women in the stressed and traumatic groups were divorced or widowed.

Stress has been tagged as the culprit in a number of other chronic disorders, yet many of us do not know how to eat and live to handle it. Standard drug therapy is not indicated for the management of daily life stresses such as work or family-related stress.

Stress is a bodily response to any actual or perceived change. Some changes are more stressful than others. Examples of strong stress changes include death of a spouse or family member, loss of job, change in marital status, legal trouble, and serious personal injury. Minor stress provoking events include new work projects, holiday activities, and managing a busy schedule.

How does the body respond to stress?

When a change is anticipated, the body prepares itself for action, a process known as the "fight or flight" response. Adrenaline (a hormone secreted from the adrenal gland) is released into the bloodstream, causing a variety of effects, including increased breathing rate, shallow breaths, increased blood pressure, increased heart rate, increased sweating, and increased blood sugar levels. The brain becomes active and alert, thereby decreasing the ability to sleep. The stress response also reduces saliva production and slows or stops the digestive process.

WHY IS STRESS USEFUL?

On an evolutionary basis, this "fight or flight" stress response enables people to become faster, stronger, more alert, and more efficient than when at rest. Modern day humans also benefit from the stress response; narrowly avoiding a car accident, surviving a natural disaster, even cooking a meal for unexpected guests. A healthy response to these events could not be possible without stress.

HOW CAN WE REDUCE STRESS?

Living in modern society makes it difficult, if not impossible, to avoid stress-provoking events. It is therefore important to find methods for relieving and managing stress.

Stress relievers include meditation, prayer, yoga, reading an enjoyable book, regular practice of a favorite hobby, and establishment of a personal support system (family and friends). Stress managers help the body cope with stress, including exercise, a healthy diet, and proper amounts of sleep (usually 8 or more hours).

Stress relievers and managers are both equally important for preventing chronic stress. Stress relievers act primarily to calm the mind, thereby also calming the body and removing the "fight or flight" response. Stress managers help the body overcome the harmful effects of stress by keeping the immune system healthy, removing toxins (free oxygen radicals, and other metabolic products of stress), and promoting proper function of all cells and organs.

WHEN DOES STRESS BECOME HARMFUL?

Stress should not become a way of life. It is merely a tool that the body uses occasionally. If the stress response is constantly active, the effects of this response are also magnified. The direct results of chronic stress therefore include high blood pressure (hypertension), insomnia, and gastrointestinal disorders (like indigestion, heartburn, and peptic ulcer).

Because the body is not equipped to deal with such conditions, the immune system also suffers, causing decreased immune function and susceptibility to infection. Chronic stress also brings fatigue, muscle aches, headache, and lack of concentration.

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STRESS (continued)

During times of high stress, eating well may make the difference in being well or sick. Emotional stress may rob the body of many of its nutrients by as much as one-third. When this occurs, the immune system suffers, and this leaves us vulnerable to colds and the flu.

Here is a guide to the main anti-stress nutrients that may aid in supporting our immune process.

Vitamin C, found in citrus, broccoli and tomatoes, is key in stress control. Stress triggers the release of hormones from glands that also store vitamin C. When these glands turn up the hormone production; they lose stockpiles of the nutrient.

Since immune cells depend on vitamin C for repair and functioning, this lowers the resistance to infection. Most people do not consume the 60 mgs of Vitamin C, a Recommended Daily Allowance (RDA) in their diet. This would equate to a half cup of the foods mentioned. During times of stress, our nutrient need for C may reach 200 mgs.

Experts suggest that people supplement vitamin C during stressful times. While studies vary on our basic needs for this valuable nutrient, most researchers agree that supplementing may aid in our immune support.

Vitamin E can also boost resistance. Yet while the RDA is 12 to 15 IUs (International Units) of this vitamin, this may not be enough to make an impact during stressful times. Recent evidence shows that 100 IUs of this nutrient can improve immunity. This would require about 20 cups of spinach, so I also suggest supplementing vitamin E.

There is also growing evidence that vitamin E has a protective element within our cardiovascular system, and many patients are taking 400 IUs.

Caution should be taken with higher amounts of vitamin E and anticoagulant medications. Talk to your pharmacist about this.

Another important nutrient for anti-stress is magnesium. This mineral is usually found in wheat germ, bananas, kidney beans and lentils. Scientists believe that magnesium plays a role in the production of calming brain chemicals. Stress hormones seem to increase the excretion of magnesium, possibly causing deficiencies. The current RDA for magnesium is 280 to 350 mgs. This amount may be found in two cups of spinach. However, during times of stress, 500 mgs or more may be required. Supplements may help here.

Magnesium is also important in protecting our heart and arteries. This is important in the stress process, and it has been shown that magnesium is deficient in most heart patients. Another fact is coffee may deplete this valuable mineral, so stay away from the java when you are stressed.

There are, of course, other nutrients involved in the stress process, and there are also many anti-stress products on the market. Be careful with herbal products and consult your healthcare professional before trying them.

There may be problems with some herbs mixed with medications, so it is wise to get all the information from your pharmacist before beginning any treatment.

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DRUG NUTRIENT INTERACTIONS

Interactions between food, herbs and drugs are more common than most people realize. Today, many people are taking herbal and nutritional supplements in addition to their "conventional" prescription medications. This multiplies the opportunities for unforeseen or harmful reactions. It is therefore vitally important to know how drugs, nutrients and herbs react with each other. Information is often the key to preventing many of these unwanted or harmful reactions.

The anti-anxiety medications most commonly prescribed are known as benzodiazepines, of which alprazolam (Xanax) and diazepam (Valium) are the best-known and most common. Benzodiazepines have a rapid onset of action and may lead to side effects such as drowsiness or lethargy. These medications have the potential to cause dependence and are one of the classes of prescription drugs most likely to be abused or misused. Dangerous interactions can also occur when these drugs are taken with alcohol or certain other medications including herbs. St. John's Wort may dangerously intensify the effects of these two substances, so they should not be used together. Ask your pharmacist for further guidance on this.

The bottom line with stress is this: Too much of it is not a good thing for your health. But when it is unavoidable, go into battle nutritionally well armed and you won't have to surrender your health.